

been collected is relatively high in dissolved carbonates and sulphates, but not to the extent of being brackish.

Najas gracillima, previously known only from a single small pond in Ramsey County has recently been collected in two additional widely separated localities, one of which is in Cook County in the extreme northeastern corner of the state, the other at the headwaters of the Mississippi River in Itasca Park.

Of *N. guadalupensis* only two earlier collections have been reported. Both of these were made about 40 years ago in the extreme southeastern part of the state. During the last two seasons the species has been collected in Hennepin, Freeborn, Martin, Renville, Yellow Medicine, Swift, Lac qui Parle, and Lincoln Counties. The known range of the species has accordingly been extended some 75 miles northward and clear across the southern third of the state to the South Dakota boundary.

UNIVERSITY OF MINNESOTA

SELENIA DISSECTA IN NEW MEXICO.—In a note in RHODORA for November, 1938, Mr. Robert F. Martin calls attention to the discovery of *Selenia dissecta* near Capitan, Lincoln County, New Mexico, April 12, 1929, by Mr. M. W. Talbot (now chief of range research, California Forest and Range Experiment Station). It seems worthwhile to record that the range plant herbarium of the U. S. Forest Service in Washington, D. C., contains four considerably earlier specimens of this crucifer collected in New Mexico as follows:

LINCOLN NATIONAL FOREST, OTERO COUNTY. (1) Mr. Joe A. Morgan's (a rancher) no. A-2 (Forest Service serial no. 31908). Collected March 15, 1919, at 4300 ft., sandy adobe soil. Sec. 32, T. 17 S., R. 10 E., Morgan's Ranch. Associated with *Euklisia valida* and *Sophia ochroleuca*.

In Mr. James T. Jardine's report on this specimen (prepared by myself) to the Regional Forester at Albuquerque, under date of January 5, 1920, this comment was made: "Apparently the first record of the occurrence of this species in the State of New Mexico; it is a rather little known species hitherto reported only from extreme western Texas near the New Mexico border."

JORNADA EXPERIMENTAL RANGE, DOÑA ANA COUNTY. (2) Paul B. Lister's no. 347 (Forest Service serial no. 42276). Collected February 28, 1923, at 4600 ft., in granitic soil. (3) Paul B. Lister's no. 361 (Forest Service serial no. 45874). Collected April 20, 1923, at

4300 ft. (4) J. D. Schoeller and R. S. Campbell's no. 503 (Forest Service no. 51402). Collected February 1, 1926, at 4300 ft. Associated with tobosa and burrograss.—W. A. DAYTON, Forest Service, Washington, D. C.

THE ASTER NOVAE-ANGLIAE, ASTER AMETHYSTINUS, ASTER MULTIFLORUS COMPLEX

RALPH H. WETMORE AND ALBERT L. DELISLE

In 1841,¹ Nuttall described and named *Aster amethystinus* from certain specimens found "in Massachusetts, near Cambridge and Salem, rare." This species was indicated as a "well marked and ornamental species, somewhat allied to *A. graveolens*, intimately to *A. novae-angliae*, but from which it is entirely distinct, the flowers not half the size, pale blue, very numerous, and disposed in a panicle, etc."

Suspicion of the possible hybrid nature of *A. amethystinus* was finally crystallized by Benke² in 1930. He epitomized the situation as follows, "The presence in close proximity of the two species before mentioned"—*A. novae-angliae* L. and *A. multiflorus* Ait.³—"in each case observed and the striking intermediate characteristics of the plant between the two furnish added circumstantial evidence that this charming aster may, with good reason, be regarded as a hybrid."

Later in the same year, Knowlton⁴ mentioned his experiences with this species in northwestern Massachusetts and southwestern Vermont, the site of Eggleston's original report of this species for Vermont. Here again he found both parents scattered around in "considerable profusion." His concluding sentence was pointed, "It would be a very interesting project for some botanical garden or experiment station to breed this interesting hybrid artificially for comparison with wild plants."

Further comments⁵ on the presumed hybrid nature of this species of *Aster* have been forthcoming from time to time. An examination of

¹ Trans. Am. Phil. Soc., ser. 2, 7: 294. 1841.

² RHODORA 32: 1-3. 1930.

³ The name *A. multiflorus* Ait. is used here because of its general occurrence in Gray's Manual, 7th ed., and other floras, instead of *A. ericoides* L. which, as Mackenzie and Blake point out, antedates it and under which the original description was made. Mackenzie, K. K. RHODORA 28: 65. 1926. Blake, S. F. RHODORA 32: 136-140. 1930.

⁴ RHODORA 32: 185-186. 1930.

⁵ Professor A. J. Eames reported to the senior author in a personal communication that he had produced *Aster amethystinus*-like plants experimentally by pollinating *A. multiflorus* stigmas with pollen from *A. novae-angliae*. He indicated that plants representing this cross are now in the herbarium at Cornell University.